

## REMARKS

This Request for Reconsideration is responsive to the Office Action mailed June 23, 2006 (hereinafter "Office Action"). Applicants appreciate the indication that Claims 14-18 and 32-38 recite patentable subject matter but, rather than amend these claims to independent form, Applicants respectfully request reconsideration and withdrawal of the rejections of Claims 1-13, 19-31, and 39-43 for at least the reasons discussed below.

### **Independent Claims 1, 20 and 39 are patentable**

Independent Claims 1 and 39 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,590,541 to Schultze ("Schultze"), while independent Claim 20 stands rejected under 35 U.S.C. § 103 as being obvious over Schultze in view of U.S. Patent No. 6,985,108 to Mikkola et al ("Mikkola"). See Office Action, pp. 2 and 4. In particular, in rejecting these claims, the Office Action states:

... Schultze discloses an half loop antenna comprising a ground plane (2); a half conductor loop (1) overlying the ground plane (2); and inherently disclose (the antenna coil (7) act like a monopole antenna) off the ground plane (2), wherein the monopole (7) and the conductor loop (1) are configured to be coupled to a common feed-point.

Office Action, pp. 2 and 3. This argument is erroneous because, among other things: (1) there is no basis for the claim of inherency relating to the alleged "monopole" behavior of the alleged "antenna coil" 7; (2) Schultze does disclose a monopole "extending off the ground plane" as recited in Claims 1 and 20; and (3) Schultze does not disclose the coupling to a common feedpoint recited in Claims 1, 20 and 39.

Regarding inherency, MPEP § 2112 states:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or

possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) . . .

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)

The Office Action cites no evidence to support the Office Action's assertion that the inductance 7 "act like a monopole" and, therefore, the Office Action fails to meet the requirements for a showing of inherency. As described in Schultze, the inductance 7 shown in FIGs. 2-4 is "a loading coil" which is inserted "into antenna half-loop 1" to "reduce the mechanical length of the antenna half-loop 1 at constant resonance frequency." Schultze, column 5, lines 55-57. In fact, it appears that the inductance 7 is simply an inductance that is connected in series between the feed-in point 3 and the curved antenna piece 1 (FIGs. 2 and 3) or the thin conductor loop 9 (FIG. 4). Thus, Schultze does not disclose a "monopole" as recited in Claims 1, 20 and 39.

In addition, the inductance 7 does not "extend off the ground plane" as recited in Claims 1 and 20, and the inductance 7 and the curved antenna piece 1 or thin conductor loop 9 are not coupled to a "**common** feedpoint" as recited in Claims 1 and 20, and are not "**commonly** fed" as recited in Claim 39. Rather, as discussed above, the inductance 7 is an intermediate circuit element that couples the curved antenna piece 1 (FIGs. 2 and 3) or the thin conductor loop 9 (FIG. 4) to the feed-in point 3. It appears that the only place that these elements are coupled in **common** is at the node at which they are connected to one another, i.e., where the curved antenna piece 1 (or thin conductor loop 9) is joined to one end of the inductance 7, which is not a **common feedpoint**.

Accordingly, Schultze does not provide the teachings alleged in the Office Action, and does not disclose or suggest several of the recitations of independent Claims 1, 20 and 39. For at least these reasons, Applicants submits that Claims 1, 20 and 39 are patentable.

**The dependent claims are patentable**

Applicants submit that dependent Claims 2-19, 21-38, and 40-43 are patentable at least by virtue of the patentability of the respective ones of independent Claims 1, 20 and 39 from which they depend. Applicants further submit that, in addition to Claims 14-18 and 32-38, which are already indicated as reciting separately patentable subject matter, several others of the dependent claims have separate bases for patentability.

For example, Claim 2 recites "wherein the conductor loop has a reflective feature therein," while Claim 3 recites "wherein the reflective feature comprises a corner." In rejecting these claims as being anticipated by Schultze, the Office Action merely states "[s]ee figures 1-3." Office Action, p. 3. As an initial matter, FIGs 1-3 do not show a "conductor loop"; rather, these figures show a "curved antenna piece" which is not a conductor loop. The Office Action also fails to indicate any specific features in these figures that correspond to the recited "reflective feature" or "corner," and Applicants submit that such features are absent from these figures. Accordingly, Schultze does not disclose or suggest the above-quoted recitations of Claims 2 and 3 and, for at least these reasons, Applicants submit that Claims 2 and 3 are separately patentable. At least similar reasons support the separate patentability of Claims 21, 22 and 40.

Claim 4 recites "wherein the conductor loop is rectangular, " while Claim 6 recites "wherein the monopole is substantially parallel to the conductor loop." In rejecting Claim 4 as obvious over Schultze, the Office Action states:

... Schultze discloses the claimed invention but does not explicitly disclose that, the conductor loop is rectangular or the monopole is substantially parallel to the conductor loop or the common feed-point (3) comprises a pad on the printed circuit substrate. However, these difference are not of patentable merit since the conductor loop is rectangular or the monopole is substantially parallel to the conductor loop or the common feed-point comprises a pad on the printed circuit substrate provide a different sharp and different direction for transmitting and receiving signal for antenna. Therefore, to employ the conductor loop is rectangular or the monopole is substantially parallel to the conductor loop or the common feed-point comprises a pad on the printed circuit substrate provide a different sharp and different direction for transmitting and receiving signal from half loop antenna of Schultze, upon a particular application or different way of use, would have been deemed obvious to a person skilled in the art.

Office Action, p. 4. The Office Action provides absolutely no evidentiary basis for these broad assertions. Applicants note that it is unclear as to what the Office Action is referring to by a "different sharp"; Applicants assume the intention was "different shape." Nonetheless, the Office Action provides no evidentiary basis for how these different features relate to a "different shape" or a "different direction for transmitting and receiving." The above-quoted argument appears to be an attempt to assert some form of an "obvious to try" standard for obviousness, which is not an appropriate basis for determining obviousness. For at least these reasons, Applicants submit that the rejection of Claim 4 is erroneous, and that Claim 4 is separately patentable. At least similar reasons support the separate patentability of Claims 23, 25 and 41. Applicants note that the Office Action fails to provide a basis for the rejection of Claim 6, but Applicants note that the reasons discussed above also support the separate patentability of Claim 6.

Claim 9 recites "wherein the conductor loop is positioned adjacent an edge of the ground plane, and wherein the monopole extends off the edge of the ground plane." In rejecting Claim 9 as anticipated by Schultze, the Office Action states "the monopole (7) extends off the edge of the ground plane." Office Action, p. 3. This appears to be incorrect as, in each of the embodiments shown in FIGs. 2-4 of Schultze, the inductance 7 extends perpendicularly up from the ground plane (2) to contact the curved antenna piece 1 (FIGs. 2 and 3) or the thin conductor loop 9 (FIG. 4), i.e., it does not "extend off the edge." Accordingly, Schultze does not disclose or suggest the above-quoted recitations of Claim 9 and, for at least these reasons, Applicants submit that Claim 9 is separately patentable. At least similar reasons support the separate patentability of Claim 28.

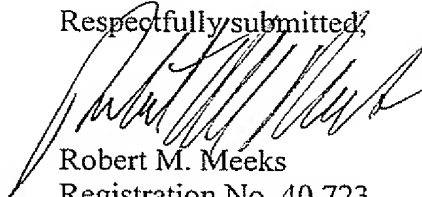
Claim 12, which also stands rejected as anticipated by Schultze, recites "a helical element arranged coaxial with the monopole and configured to be coupled to the common feedpoint." The Office Action states "Schultze discloses a helical element (7) arranged coaxially with the monopole." Office Action, p. 3. This does not appear to be the case as, in each of the embodiments of FIGs. 2-4 of Schultze, the inductance 7 does not appear to be coaxially arranged with anything, let alone a monopole. Accordingly, Schultze does not disclose or suggest these recitations of Claim 12 and, for at least these reasons, Applicants submit that Claim 12 is separately patentable. At least similar arguments support the separate

patentability of Claim 19, which recites "a helical element wrapped around the monopole and coupled to the common feedpoint," and Claim 30, which includes similar recitations.

**Conclusion**

For at least the foregoing reasons, Applicants submit that all of the claims are in condition for allowance. Applicants, therefore, request allowance of the claims and passing of the application to issue in due course. Applicants encourage the examiner to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

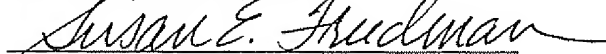


Robert M. Meeks  
Registration No. 40,723  
Attorney for Applicant(s)

**USPTO Customer No. 20792**  
Myers Bigel Sibley & Sajovec  
Post Office Box 37428  
Raleigh, North Carolina 27627  
Telephone: 919/854-1400  
Facsimile: 919/854-1401

**CERTIFICATION OF ELECTRONIC TRANSMISSION  
UNDER 37 CFR § 1.8**

I hereby certify that this correspondence is being transmitted electronically to the U.S. Patent and Trademark Office on September 22, 2006.



Susan E. Freedman

Date of Signature: September 22, 2006